

REMARKS

Claims 9, 26-31 and 35 have been amended in accordance with the Examiner's suggestions. The amendments are fully supported by the original claims and the specification and do not contain new matter. Claims 32 and 35-39 have been withdrawn by the Examiner as non-elected. In order to retain the right of rejoinder in accordance with MPEP §821.04, the Applicants have amended Claim 35 (a process of using claim) to depend on claim 1 as suggested by the Examiner. Accordingly, Applicants note that all the withdrawn claims now depend on the compound claims or otherwise include all the limitations of the compound claims. Thus, the Applicants respectfully request rejoinder of claims 32 and 35-39 (process claims) if the compound claims are deemed allowable.

The Applicants expressly rebut any presumption that the Applicants have surrendered any equivalents under the doctrine of equivalents and expressly state that the claims, as amended, are intended to include and encompass the full scope of any equivalents as if the claims had been originally filed and not amended.

Claim Rejections Under 35 USC § 112, 2nd Paragraph

Claims 9 and 26-31 have been rejected under 35 USC §112, second paragraph. According to the Examiner, the term "being" in the claim 9 is misspelled and the term "and" needs to be added prior to the last compound in claims 26-31.

In response, the Applicants note that the claims have been amended to correct the misspelling in claim 9 and add the conjunctive term "and" to the Markush groups in claims 26-31. Accordingly, the Applicants respectfully request that this rejection be withdrawn.

Obviousness-Type Double Patenting Rejection

Claims 1-5, 7-12, 15, 17-21, 23-31, 33 and 34 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10, 16, and 33 of copending Application No. 10/743,642 for the reasons set forth in the Office Action.

In response, since it is unclear what claims will be allowed in what form in copending U.S. Application No. 10/743,642 and what claims will be allowed in what form in the present application, the Applicants respectfully request the Examiner to hold this rejection in abeyance until the claims of the present application are otherwise deemed allowable except for the obviousness-type double patenting rejection.

Claim Rejections Under 35 USC § 103

Claims 1, 2, 12, 23, 24, 33 and 34 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,342,851 ("Sanfilippo"). According to the Examiner, Sanfilippo teaches pyrrolyl-thiazole compounds that are structurally similar to the claimed compounds. The Examiner cites formula III in Sanfilippo wherein R is hydrogen, R₃ is hydrogen, A is carboxamido, B is alkyl, and Q is alkoxy, and the Examiner also cites Example 233 in column 34. The Applicants respectfully traverse this rejection.

The Applicants respectfully submit that a *prima facie* case of obviousness has not been established because there is absolutely no motivation to modify Sanfilippo to obtain the compounds of the present invention. "To establish a *prima facie* case of obviousness . . . there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference." MPEP § 2143.01, entitled "Basic Requirements of a *Prima Facie* Case of Obviousness."

There is no motivation to modify Sanfilippo to obtain the compounds of the present invention because: (1) all the generic structures and species in Sanfilippo are extremely broad and/or different from the presently claimed invention; and (2) the utilities or properties of the compounds disclosed in Sanfilippo and the claimed invention are different.

Teachings of Structural Similarity

The genera and species disclosed by Sanfilippo are structurally different than the genera and species recited in the pending claims of the present application. For example, the claimed invention of the present application only relates to pyrrolyl-thiazole derivatives. However, 80% of the total species exemplified in Sanfilippo relate to pyrazole-thiazole and phenyl-thiazole compounds (not pyrrolyl-thiazole compounds). See Examples 1-208 of Sanfilippo (all relate to pyrazole-thiazole and phenyl-thiazole compounds). In fact, Sanfilippo, only discloses 5 species that relate to pyrrolyl-thiazole compounds (examples 231, 232, 233, 236, and 237). All of these species fall far outside the genus of the claimed invention and are completely different from any genus, sub-genus, or species disclosed or claimed in Applicant's application.

Moreover, formula III and the five total pyrrolyl-thiazole species disclosed in Sanfilippo all require that the pyrrolyl group be in the 2-position directly between the nitrogen and sulfur of the thiazole ring. In contrast, the pyrrolyl group of the compounds of the present invention are all outside on the 4-position of the thiazole ring. Similarly, the R substituent on the 4-position of the thiazole ring of formula III in Sanfilippo does not exist on the thiazole ring of the present invention. Thus, all the thiazoles of the present invention have a completely different substitution pattern than the thiazoles disclosed in Sanfilippo. Moreover, the compounds of the present invention, have the R^1R^2NCO group in the 3-position of the pyrrolyl ring whereas the exemplified compounds of Sanfilippo are 2-substituted.

Furthermore, the R, R¹, R², R³, and A-(B)-Q substituents of formula III in Sanfilippo either don't exist, are much different, and/or are much broader than the corresponding substituents of formula I of the claimed invention. For example, the R³ substituent on the thiazole ring of formula III in Sanfilippo is different and extremely broad compared to the R⁷ substituent on the thiazole ring of the presently claimed invention. Similarly, the R¹ substituent on the pyrrolyl ring of formula III in Sanfilippo is different and much broader compared to the R⁵ or R⁶ substituents on the pyrrolyl ring of the claimed invention.

According to MPEP § 2144.08(4)(a), if the size of the prior art genus is broad compared to the claimed genus, one of ordinary skill in the art is less likely to be motivated to select the claimed genus or species. A rejection for obviousness is not appropriate "where the prior art does not disclose a small recognizable class of compounds with common properties." MPEP § 2144.08(II)(A)(4)(a), third paragraph, citing *In re Ruschig*, 343 F.2d 965 974 (CCPA 1965). See also *In re Deul*, 51 F.3d 1552, 1558-59 (Fed. Cir. 1995) ("[n]o particular one of these DNAs can be obvious unless there is something in the prior art to lead to the particular DNA and indicate that it should be prepared") and MPEP § 2144.09, citing *In re Langer*, 465 F.2d 896 (CCPA 1972) (claims to a polymerization process using a sterically hindered amine were held unobvious over a similar prior art process because the prior art disclosed a larger number of unhindered amines and only one sterically hindered amine [which differed from a claimed amine by 3 carbon atoms], and therefore the reference as a whole did not apprise the ordinary artisan of the significance of hindered amines as a class.).

Similarly, if the exemplified genera or species in a prior art reference are different in structure or function from what is claimed, then this "weigh[s] against selecting the claimed species or subgenus and thus against a determination of obviousness." MPEP § 2144.08(II)(A)(4)(c), fourth paragraph. See also MPEP § 2144.08(II)(A)(4)(c), citing *In re James*, 958 F.2d 347, 350 (Fed. Cir. 1992) (reversing obviousness rejection of novel

dicamba salt with acyclic structure over broad prior art genus encompassing claimed salt, where disclosed examples of genus were dissimilar in structure, lacking an ether linkage or being cyclic); Ex parte Burtner, 121 USPQ 345, 347 (Bd. of App. 1951) (holding claimed alcohols patentable over prior art compounds differing by a $-CH_2-$ group).

Thus, because all the generic structures and species in Sanfilippo are extremely broad and/or different from the presently claimed invention, there is no motivation to modify Sanfilippo to obtain the compounds of the present invention.

Teachings of Similar Properties or Uses

There are no teachings of similar properties or uses in Sanfilippo and the presently claimed invention. For example, the compounds disclosed in Sanfilippo are useful as platelet aggregation or adhesion molecule inhibitors useful for the treatment of thrombosis. In contrast, the compounds of the present invention are useful for modulating cannabinoid receptors (e.g., CB1 receptors) useful for the treatment of obesity and other cannabinoid receptor related disorders. Thus, one skilled in the art looking for compounds useful for modulating cannabinoid receptors would not be motivated to select or modify the compounds of Sanfilippo which only teach platelet aggregation and adhesion molecule inhibitors useful for treating thrombosis. Accordingly, there is no expectation in Sanfilippo that structurally similar compounds would modulate cannabinoid receptors or be useful for treating obesity.

"It is the properties and utilities that provide real world motivation for a person of ordinary skill to make the species structurally similar to those in the prior art . . . [c]onversely, lack of any known or useful properties weighs against a finding of motivation to make or select a species or subgenus." MPEP § 2144.08(d). Thus, because the utilities or properties of the compounds disclosed in Sanfilippo and the

claimed invention are different, there is no motivation to modify Sanfilippo to obtain the compounds of the present invention.

In conclusion, since all the generic structures and species in Sanfilippo are extremely broad and/or different from the presently claimed invention and because Sanfilippo teaches that its compounds are platelet aggregation inhibitors in contrast to cannabinoid receptor modulators, it is respectfully submitted that there is no motivation to select or obtain the presently claimed compounds from Sanfilippo, and therefore a *prima facie* case of obviousness has not been established. Accordingly, the Applicants respectfully request that the rejection under 35 U.S.C. § 103 be withdrawn.

Entry of the foregoing remarks and amendments is respectfully requested. No fee is believed to be due in connection with the filing of this Amendment. However, if any fee is deemed necessary, authorization is given to charge the amount of any such fee to Deposit Account No. 08-2525.

Respectfully submitted,



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